In the Claims

Please cancel claims 27 and 28.

Please substitute amended claims 1, 4, 5, 9, 11, 17, 22 and 26 for pending claims 1, 4, 5, 9, 11, 17, 22 and 26 as follows:

1. (Three Times Amended) A hybrid device comprising:

a substrate;

a micro-spring interconnect formed on the substrate, the micro-spring interconnect including,

an elastic material that is operatively associated with a surface of the substrate including,

an anchor portion fixed to the substrate, and

a free portion spaced from the substrate; and

a sensor formed on the substrate, the sensor including an active layer and contacts, said active layer configured to sense light and be at least partially transparent to light at selected wavelengths,

said micro-spring interconnect and said sensor being integrated on the substrate.

4. (Twice Amended) The invention according to claim 2 wherein the sensor, including the active layer, is designed and aligned with at least one of the laser array and the LED array to receive and pass, through the active layer, an amount of the emitted light from a portion of at least one of the laser array and the LED array sufficient for a printing operation.

5. (Twice Amended) The invention according to claim 4 wherein the substrate is designed and aligned with at least one of the laser array and the LED array to receive and pass, through the active layer, an amount of the emitted light from a portion of at least one of the laser array and the LED array sufficient for a printing operation.

9. (Amended) The invention according to claim 1 wherein the sensor is comprised of,

a first transparent/conductive layer;

the active layer located on top of the first transparent/conductive layer;

a second transparent/conductive layer on top of the active layer;

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a passivation/release layer located over at least the first transparent/conductive layer and the second transparent/conductive layer;

vias through the passivation/release layer to the first and second transparent/conductive layers; and

a metal layer connecting to the first and second transparent/conductive layers through the vias, wherein the metal layer acts as signal lines to receive and carry signals from the active layer.

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11. (Three Times Amended) The invention according to claim 1 wherein the elastic material is a stressed metal layer having sub-layers of differing stress gradients.

17. (Twice Amended) A hybrid device comprising:

at least one of a laser or LED device capable of emitting light at a certain wavelength;

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a substrate;

a micro-spring interconnect formed on the substrate, the micro-spring interconnect including,

an elastic material operatively associated with a surface of the substrate including,

an anchor portion fixed to the substrate, and

a free portion spaced from the substrate; and

a sensor formed on the substrate, in an integrated manner, with the micro-spring interconnect, the sensor including an active layer and contacts, wherein said substrate and said sensor, including the active layer, are at least partially transparent to light at the wavelength emitted by at least one of the laser or the LED device; and

said at least one of the laser or the LED device and said substrate with said

cont'd C5

sensor and said at least one micro-spring interconnect being separately fabricated and aligned, such that at least a portion of the light emitted directly by the at least one of the laser and LED device is directed through at least a portion of the substrate and the active layer of the sensor.

22. (Three Times Amended) A calibration/printing system comprising:

a sensor configuration including a sensor element integrated on a substrate with a plurality of micro-spring interconnects;

a light source aligned with the sensor configuration such that at least a portion of the light directly from the light source is sensed and passed through the active layer of the sensor and at least a first of the micro-spring interconnects is in physical contact with a portion of the light source; and

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a driver chip aligned with the sensor configuration and the light source such that at least a second of the micro-spring interconnects is in physical contact with a portion of the driver chip, and a communication path is formed between the light source and the driver chip by the at least first and second micro-spring interconnects.

26. (Three Times Amended) A hybrid device comprising:

a micro-spring interconnect structure; and

at least two devices electrically connected by the interconnect structure

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wherein,

one of the devices is a sensor, the sensor including an active layer and contacts, said active layer sensing light, and

another one of the devices is at least one of a single light source, an array of lasers, and an array of light emitting diodes (LEDs), positioned to emit light directly to and at least partially through the active layer of the sensor.